FACULTY:	Department of Mechanical Engineering
FIELD OF STUDY:	Transport
ERASMUS COORDINATOR OF THE FACULTY:	Dr hab. inż. Agnieszka Kułakowska, Prof. PK
E-MAIL ADDRESS OF THE COORDINATOR:	Agnieszka.kulakowska@tu.koszalin.pl
COURSE TITLE:	Technical mechanics 2
LECTURER'S NAME:	Dr hab inż. Łukasz Bohdal, Prof PK
E-MAIL ADDRESS OF THE LECTURER:	lukasz.bohdal@tu.koszalin.pl
COURSE CODE (USOS): 1	8
ECTS POINTS FOR THE COURSE:	3 ECTS
ACADEMIC YEAR:	2024/2025
SEMESTER: (W – winter, S – summer)	W
HOURS IN SEMESTER:	15 + 15
LEVEL OF THE COURSE: (1st cycle, 2nd cycle, 3rd cycle)	1st cycle
TEACHING METHOD: (lecture, laboratory, group tutorials, seminar, other-what type?)	Lecture + practice
LANGUAGE OF INSTRUCTION:	• English full time scheme for classes with 5 and more international Erasmus+ students enrolled/accepted; • English 50% individually with the teacher + Polish 50% with Polish students or individual project work-scheme for classes with less than 5 international Erasmus+ students enrolled/ accepted;
ASSESSMENT METOD: (written exam, oral exam, class test, written reports, project work, presentation, continuous assessment, other – what type?)	Written exam
COURSE CONTENT:	Kinematics of a particle, description of the motion, uniform motion, Rectilinear uniform motion, Rectilinear motion of a variable, Movement of uniformly accelerated, The definition of acceleration, Route, speed and acceleration in linear motion, Uniform circular motion - centripetal acceleration, The kinetic energy of linear motion Special Theory of Relativity, The experiment of Michelson and Morley, The postulates of special relativity Simultaneity and shorten the time interval Relativistic addition of velocities, Shortening the episode in motion, Relativistic mass and relativistic momentum. The relationship between the momentum and energy, Parallelogram rule of addition of vectors, friction, the principles of dynamics, the momentum of the body, The principle of conservation of momentum, The law of universal gravitation, Dynamics of the traversing motion of a material point in the circle and rotary motion of a rigid body
ADDITIONAL INFORMATION:	

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